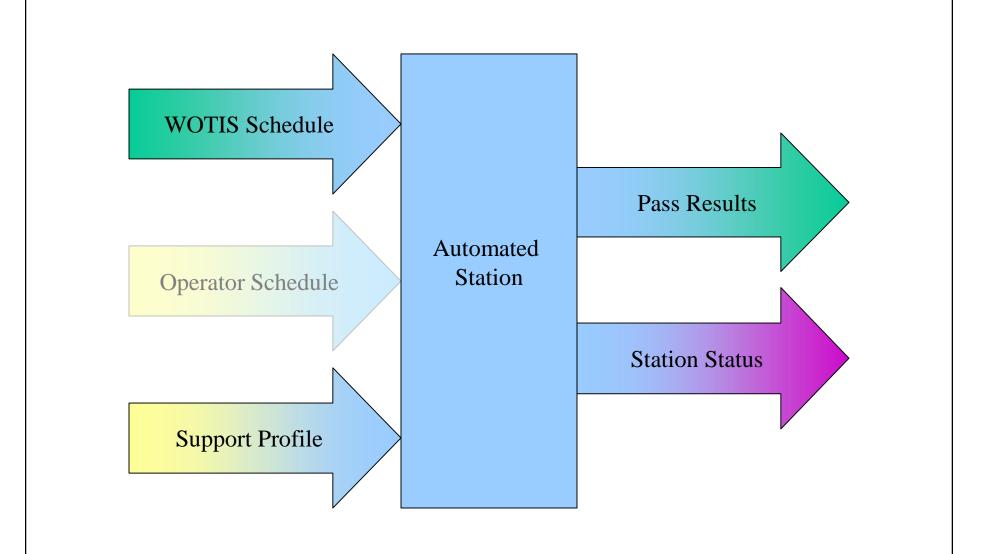


Automation Operations Concept

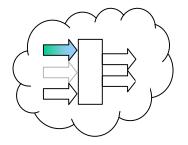






WOTIS Schedule → Automated Station





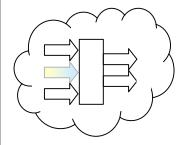
Schedule and ephemeris data is compiled at the scheduling office and forwarded to the Automated Tracking Station.

- ➤ No operator action is required.
- ➤ An operator <u>can</u> view the operational schedule and the Master's list of "things to do".



Operator Schedule → Automated Station





An operator <u>can</u> modify, insert, or delete events on the operational schedule.

- ➤ Modification involves changing the start and/or stop time for the event.
- ➤ Insertion involves entering, using a Windows GUI, all "typical" schedule information for the event, including the ephemeris data.

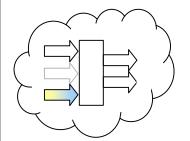
Mean Julian date, X, Y, Z, X, Y, Z

➤ Deletion involves selecting the event to be deleted and confirming the deletion.



Support Profile → Automated Station





An operator defines the tracking station configuration for each anticipated support (satellite/antenna/operation).

The following information must be provided by an operator using a Windows GUI:

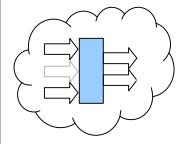
- Support characteristics
 - Satellite, ID Code, operation, frequencies, data formats, etc.
- ➤ Antenna requirements
 - Antenna, setup/start/stop allowances, configuration
- Resource requirements, including the configuration for all devices

 Number of units, requested units, setup/start/stop allowances, etc.
- > Test procedures to be performed prior to the support Not yet defined.



Automated Station





An operator can monitor the status of the tracking station and control all automated tracking station resources.

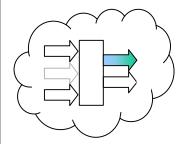
- An operator <u>can</u> use a Windows GUI to access a wide range of status information.
- An operator <u>can</u> use a Windows GUI to exercise full control of all automated devices.

No operator = no fault resolution



Automated Station → Pass Results





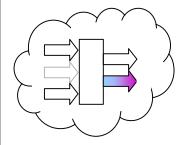
The automated tracking station generates pass results information and shipping reports and delivers the reports to WOTIS.

- ➤ Pass results are automatically generated and forwarded to WOTIS.
- > Generation and forwarding of shipping reports must be initiated by an operator.



Automated Station → Station Status





A customer can monitor the status of an automated tracking station during a support.

➤ No operator action is required.



Automation Operational Requirements



- ✓ The equipment must be powered on and in remote mode (if applicable).
- ✓ The Masters and Nodes must be powered on and the automation software must be running on all workstations.

There is a documented standard operating procedure for bringing up the Master and Node computers.

- ✓ One Master must be designated as the Scheduling Master.
- ✓ One Master must be designated as the Reporting Master.
- ✓ The 11 meter antenna software must be running and no user other than the Master may be in upgrade status.

Users may be logged in to the antenna.

✓ A support profile must exist for <u>every</u> anticipated support (satellite/antenna/operation).